

Yealink Phones User Guide

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1 Introduction

Yealink Phones User Guide



This User Guide is written as general guide on how to set up the Yealink phone models: SIP-T18P, SIP-T20P, SIP-T22P, SIP-T26P, SIP-T28P, SIP-T60P and SIP-T65P to work with PBXware 3.1.

2 Requirements

1. Identify Yealink Phone Model

- To start and successfully complete registration of your Yealink phone you need to know which phone model you will setup.
- From the back of each Yealink phone there are exact model information that you should check. Although different phone models can have exactly the same requirements and installation procedure, phone models can also have significantly different requirements and installation procedure, so that ignorance of your own model may result in the inability to successfully set up your phone.

2. Phone firmware

- Make sure that your phone is loaded with appropriate firmware version.

model	firmware
SIP-T18P	18.0.23.2
SIP-T20P	9.60.23.6
SIP-T22P	7.60.23.5
SIP-T26P	6.61.0.50
SIP-T28P	2.61.0.50
SIP-T60P	60.0.0.82
SIP-T65P	65.0.0.70

- To find out the firmware version of your Yealink phone model open a new browser window and enter your phone IP address in order to access the phone web administration interface login screen. Example: **http://192.168.1.22**.
- Login to phone web administration interface with your username and password. Please note, factory default login details are username: **admin** and password: **admin**.

3. DHCP server

Fully configured and operational DHCP server.

4. PBXware version

In order to find out the PBXware version, please login to PBXware and navigate to Settings: About. On the top of "About" page is a code similar to this one "PBXware Edition: Business, Release: 3.1 (041373f), Running: 1.4.24-gc-75ee203", where "Release" denotes the exact version of your PBXware.

3 Installation

This chapter describes how to install and connect the phone to the electrical power and data network as well as how to apply factory settings.

The following topics are covered:

- [Power adapter](#)

- [Power over Ethernet \(PoE\)](#)
- [Factory Settings](#)

3.1 Power Adapter

1. Connect the Network and Power

- Connect the DC plug on the power adapter to the DC port on the phone and connect the other end of the power adapter into an electrical power outlet.
- Connect the ethernet cable between the Internet port on the phone and the network port on a router or switch to access LAN.

NOTE If you are using Power over Ethernet (PoE), you don't need to connect the AC adapter. Make sure the Ethernet cable and router or switch is Power over Ethernet (PoE) compliant.

3.2 Power over Ethernet (PoE)

1. Connect the Network (only)

Using a regular ethernet cable, your phone can be powered from a Power over Ethernet (PoE) compliant router or switch.

- Connect the Ethernet cable between the Internet port on the phone and an available port on the in-line power router or switch.

NOTE If you are using Power over Ethernet (PoE), you don't need to connect the AC adapter. Make sure the Ethernet cable and router or switch is Power over Ethernet (PoE) compliant.

3.3 IP Address

1. Find out your Yealink phone IP Address

- For Yealink phone models SIP-T20P, SIP-T22P, SIP-T26P, SIP-T28P, SIP-T60P and SIP-T65P on the phone keyboard press **Menu** then **Enter** button to see the phone IP address on the display. For the Yealink phone model SIP-T18P pickup the handset and dial ****90#**.

3.4 Factory Settings

1. Reset to factory settings

This step is not required for out-of-the-box phones, however, if the phone has been already used then it is a must.

- Open a new browser window and enter your phone IP address in order to access the phone web administration interface login screen. Example:
http://192.168.1.22.

- Login to phone web administration interface with your username and password. Please note, factory default login details are username: **admin** and password: **admin**.
- Click on **Upgrade** tab.
- Click on **Reset** button in order to reset the phone to factory settings. Phone will be reset to the factory settings and reboot.
- Wait sometime prior for device to reboot.
NOTE Do not unplug or remove power to the phone while it is updating firm ware and configurations.

4 Registering Phone

This chapter describes how to identify Yealink phone model, requirements that must be met and how to register the phone using manual configuration or auto provisioning.

The following topics are covered:

- [Manual Configuration](#)
- [Auto Provisioning](#)

4.1 Manual Configuration

This chapter describes how to set UAD settings, create PBXware extension and register the phone using **Hostname or IP Address**, or **DNS SRV**.

The following topics are covered:

- [UAD Settings](#)
- [Creating Extension](#)
- [Registering Phone](#)

4.1.1 UAD Settings

1. Login to PBXware web administration interface

- Open a new browser window and enter the IP address in order to access the PBXware web administration login screen. Example: **http://192.168.1.10**.
- Login to PBXware with your e-mail address and password.

2. UAD settings

- Navigate to **Settings:UAD**.

- Make sure Yealink UAD is enabled. To check the UAD status click on the **edit** icon corresponding to your Yealink phone.
- Make sure **Status** is set to **Active**, **Auto provisioning** is set to **No**, and **DHCP** is set to **Yes**.

» Device > Yealink T22P

General

DTMF Mode: rfc2833

Context: default

Status: Active

Internal UAD name for Auto-Provisioning: cisco504g

Codecs

Disallow: all

Allow:

☒ G.711 µlaw ☒ G.711 alaw

☐ G.722 ☐ G.723.1

☐ G.726 ☐ G.726 AAL2

☒ G.729 ☐ GSM

☐ Speex ☐ LPC10

☐ H.261 Video ☐ H.263 Video

☐ H.263+ Video ☐ H.264 Video

Auto-Framing (RTP Packetization): ☐ Yes ☐ No ☒ N/A

Network Related

NAT: ☐ Yes ☐ No ☐ Never

☐ Route ☒ N/A

Canreinvite: yes

Qualify: 2000

Call Properties

Ringtime: 32

Incoming Dial Options: tr

Outgoing Dial Options:

Channels

Incoming Limit: 4

Outgoing Limit: 4



Auto Provisioning

Auto provisioning: ☐ Yes ☒ No ☐ N/A

DHCP: ☒ Yes ☐ No ☐ N/A

Presence

Presence Enabled: ☐ Yes ☐ No ☒ N/A

 Save
  Go back

- Click on the **Save** button to save changes.

4.1.2 Creating Extension

1. Add Extension

- Navigate to **Extensions**. Click on **Add Extension**.
- The standard options window will be shown below.
- Select Yealink phone model from the **UAD** select box.
- Select Location: **Local** or **Remote**.
Local is for all extensions registered on the LAN and **Remote** is for all extensions registered from remote networks, WAN, Internet etc.

- Click on the **Next step** button.

2. Extension values

Enter values into the required field text boxes.

REQUIRED FIELDS

- **Name**

Enter a name for the extension being created. Example: **John Smith**.

- **E-mail**

Enter the e-mail address associated with this extension. This e-mail address will receive all system notification messages. Example: **john.smith@bicomsystems.com**.

» Extensions: Add

General

Extension: 1000 ✓

Name: John Smith ✓

E-mail: john.smith@bicomsystem ✓

Department: None

Permissions

Destinations

Enhanced Services

Notes

Authentication

Username: 1000 ✓

Secret: %-XqM9*P@_3R

Secure - 80%

PIN: 5228 ✓

Auto Provisioning

Auto provisioning: ☐ Yes ☒ No ☐ N/A ✓

MAC Address:

Save Go back

- Click on the **Save** button.

4.1.3 Registering Phone

This chapter describes how to register Yealink phone using **Hostname or IP Address**, or **DNS SRV**.

The following topics are covered:

- [Hostname or IP Address](#)
- [DNS SRV](#)

4.1.3.1 Hostname or IP Address

1. Login to phone web administration interface

- Open a new browser window and enter your phone IP address in order to access the phone web administration interface login screen. Example: `http://192.168.1.22`
- Login to phone web administration interface with your username and password. Please note, factory default login details are username: admin and password: admin.
- Click on **Account**.
- Enter or set the following details into the respective fields.

REQUIRED FIELDS

- **Account Active**
Make sure the **On** radio box is selected.
- **Register Name**
PBXware extension number. Example: **1003**
- **User Name**
Usually the same number as the **Phone Number**.
- **Password**
The Secret of the extension as received in the e-mail associated with this extension. Example: **_%Z4M3*Ts9y7**. A password is generated automatically for each newly created extension.
- **Sip Server**
Enter the Hostname or IP Address of the PBXware.
 - Example for Hostname: **voip.bicomsystems.com**
 - Example for IP Address: **192.168.1.10**
- Click on the **Confirm** button.
- You'll have to wait sometime prior for the device to reboot. If everything is done as above described, you should have successfully registered your phone to PBXware. Dial *123 to verify registration.

4.1.3.2 DNS SRV

This chapter describes how to use a **DNS SRV** record which specifies the location of the PBXware. **NOTE** Your DNS Server needs to be configured correctly for this to work. Bicom Systems can provide service to set up this for you.

1. Login to phone web administration interface

- Open a new browser window and enter your phone IP address in order to access the phone web administration interface login screen. Example: `http://192.168.1.22`
- Login to phone web administration interface with your username and password. Please note, factory default login details are username: admin and password: admin.
- Click on **Account**.
- Enter or set the following details into the respective fields.

REQUIRED FIELDS

- **Account Active**

Make sure the **On** radio box is selected.

- **Register Name**

PBXware extension number. Example: **1003**

- **User Name**

Usually the same number as the **Phone Number**.

- **Password**

The Secret of the extension as received in the e-mail associated with this extension. Example: **_%Z4M3*Ts9y7**. A password is generated automatically for each newly created extension.

- **Sip Server**

In the **Sip Server** field enter the Hostname.

- Example for the Hostname: **bicomsystems.com**

- Make sure you replace Hostname from this example with your PBXware Hostname.
- Make sure DNS server is configured to automatically route registration request to a PBXware which is actually under another domain name, example: **newbicomsystems.com**.
- **Transport**
Select **DNS SRV** from the drop down menu.
- Click on the **Confirm** button.

- You'll have to wait sometime prior for the device to reboot. If everything is done as above described, you should have successfully registered your phone to PBXware. Dial *123 to verify registration.

4.2 Auto Provisioning

This chapter describes how to set UAD settings, create PBXware extension and register the phone using DHCP or Static IP address. **NOTE** *Auto Provisioning with DHCP or Static IP using HTTPS not supported for Yealink phone model SIP-T18P.*

The following topics are covered:

- [UAD Settings](#)
- [Creating Extension](#)
- [Registering Phone](#)

4.2.1 UAD Settings

1. Login to PBXware web administration interface

- Open a new browser window and enter the IP address in order to access the PBXware web administration login screen. Example: **http://192.168.1.10**.
- Login to PBXware with your e-mail address and password.

2. UAD settings

- Navigate to **Settings:UAD**.
- Make sure Yealink UAD is enabled. To check the UAD status click on the **edit** icon corresponding to your Yealink phone.
- Make sure **Status** is set to **Active**, **Auto provisioning** is set to **Yes**, and **DHCP** is set to **Yes**.

» Device > Yealink T22P

General

DTMF Mode: rfc2833

Context: default

Status: Active

Internal UAD name for Auto-Provisioning: cisco504g

Network Related

NAT: ☐ Yes ☐ No ☐ Never
☐ Route ☒ N/A

Canreinvite: yes

Qualify: 2000

Call Properties

Ringtime: 32

Incoming Dial Options: tr

Outgoing Dial Options:

Channels

Incoming Limit: 4

Outgoing Limit: 4

Codecs

Disallow: all

Allow: ☒ G.711 µlaw ☒ G.711 alaw
☐ G.722 ☐ G.723.1
☐ G.726 ☐ G.726 AAL2
☒ G.729 ☐ GSM
☐ Speex ☐ LPC10
☐ H.261 Video ☐ H.263 Video
☐ H.263+ Video ☐ H.264 Video



Auto-Framing (RTP Packetization): ☐ Yes ☐ No ☒ N/A

Auto Provisioning

Auto provisioning: ☒ Yes ☐ No ☐ N/A
DHCP: ☒ Yes ☐ No ☐ N/A

Presence

Presence Enabled: ☐ Yes ☐ No ☒ N/A

 Save  Go back

- Click on the **Save** button to save changes.

4.2.2 Creating Extension

1. Add Extension

- Navigate to **Extensions**. Click on **Add Extension**.
- The standard options window will be shown below.
- Select Yealink phone model from the **UAD** select box.
- Select Location: **Local** or **Remote**.
Local is for all extensions registered on the LAN and **Remote** is for all extensions registered from remote networks, WAN, Internet etc.
- Click on the **Next step** button.

2. Extension values

Enter values into the required field text boxes.

REQUIRED FIELDS

- **Name**

Enter a name for the extension being created. Example: **John Smith**.

- **E-mail**

Enter the e-mail address associated with this extension. This e-mail address will receive all system notification messages. Example: **john.smith@bicomsystems.com**

- **Auto Provisioning**

Set to **Yes**.

- **MAC Address**

Enter Yealink phone MAC address. Example: **0002FDFF1536**. MAC address can be found at the back of the phone.

» Extensions: Add

General

Extension: 1000 ✓

Name: John Smith ✓

E-mail: john.smith@bicomsystem ✓

Department: None

Permissions

Destinations

Enhanced Services

Notes

Authentication

Username: 1000 ✓

Secret: %-XqM9*P@_3R

Secure - 80%

PIN: 5228 ✓

Auto Provisioning

Auto provisioning: ☒ Yes ☐ No ☐ N/A ✓

MAC Address: 0002FDFF1536

Save Go back

- Click on the **Save** button.

4.2.3 Registering Phone

This chapter describes how to register Yealink phone using **DHCP**, **TFTP**, **HTTP** & **HTTPS** or **DNS SRV**.

The following topics are covered:

- [DHCP](#)
- [TFTP or HTTP & HTTPS](#)
- [DNS SRV](#)

4.2.3.1 DHCP

1. Configure DHCP

- Make sure your DHCP router is configured to use **option 66** to automatically instruct phones with the URL for auto provisioning. For more information refer to your router documentation or contact your network administrator.

2. Phone first boot or user initiated reboot

Auto provisioning process will start during phone first boot or after reboot process has been initiated by user. DHCP server will instruct the phone where from to pickup appropriate configuration file. If everything is done as above described, you should have successfully registered your phone to PBXware. Dial ***123** to verify registration.

4.2.3.2 TFTP or HTTP & HTTPS

1. Login to phone web administration interface

If there is no DHCP in your network, you can still auto provision your Yealink phone. Please refer to your Yealink phone model User Guide for instruction about setting static IP address. After you configure your Yealink phone to use a static IP address, continue with the following steps.

- Open a new browser window and enter your phone IP address in order to access the phone web administration interface login screen. Example:
http://192.168.1.22.
- Login to the phone web administration interface with your username and password. Please note, factory default login details are username: admin and password: admin.
- Click on **Upgrade** tab.
- Click on **Advanced** tab.
- You can use **TFTP** or **HTTP & HTTPS** protocols in order to Auto Provision your Yealink phone.
- Choose which protocol you want to use:
 - [TFTP](#)
 - [HTTP & HTTPS](#)

4.2.3.2.1 TFTP

- In the **URL** field enter **Hostname** or **IP Address**.
 - Example for Hostname: **https://voip.bicomsystems.com/**
 - Example for IP Address: **tftp://192.168.1.10/**
- Make sure you replace Hostname or IP Address from this example with your PBXware Hostname or IP address.
- **Check New Config**
Select **Power on + Repeatedly**.
- Click on the **Confirm** button.
You'll have to wait sometime prior for the device to save changes.
- Click on the **Auto Provision** button to run auto provisioning process, then you'll be asked to confirm action. To continue click on **OK** button.
- Auto provisioning process will start during phone reboot process, phone will pickup appropriate configuration file from PBXware. If everything is done as above described, you should have successfully registered your phone to PBXware. Dial ***123** to verify registration.

4.2.3.2.2 HTTP & HTTPS

This chapter describes how to use HTTP & HTTPS protocols in order to register Yealink phone. **NOTE** Your PBXware needs to be configured correctly for this to work. Contact your PBXware administrator. Bicom Systems can provide service to set up this for you.

- In the **URL** field enter **http://** or **https://** followed by **Hostname** or **IP Address**, followed then by **/tftp/**
 - Example for Hostname using HTTP: **http://voip.bicomsystems.com/tftp/**
 - Example for Hostname using HTTPS: **https://voip.bicomsystems.com/tftp/**
 - Example for IP Address using HTTP: **http://192.168.1.10/tftp/**
 - Example for IP Address USING HTTPS: **https://192.168.1.10/tftp/**
- Make sure you replace Hostname or IP Address from this example with your PBXware Hostname or IP address.
- **Check New Config**
Select **Power on + Repeatedly**.
- Click on the **Confirm** button.
You'll have to wait sometime prior for the device to save changes.

- Click on the **Auto Provision** button to run auto provisioning process, then you'll be asked to confirm action. To continue click on **OK** button.
- Auto provisioning process will start during phone reboot process, phone will pickup appropriate configuration file from PBXware. If everything is done as above described, you should have successfully registered your phone to PBXware. Dial ***123** to verify registration.

4.2.3.3 DNS SRV

This chapter describes how to use a DNS SRV record which specifies the location of the PBXware. **NOTE** Your DNS Server needs to be configured correctly for this to work. Bicom Systems can provide service to set up this for you.

1. Check if the DNS SRV is enabled in your PBXware

- Contact your PBXware administrator to find out if the **DNS SRV** is enabled in your PBXware, or if you have access to the PBXware you can check this yourself.
- Open a new browser window and enter the IP address in order to access the PBXware web administration login screen. Example: **http://192.168.1.10**.
- Login to PBXware with your e-mail address and password.
- Navigate to **Settings: Servers**. Click on the server corresponding **edit** button.
- In **Auto Provisioning group**, make sure **Use DNS SRV when possible:** is set to **Yes**. If it is set to **No** or **N/A**, set to **Yes** and click on the **Save** button.
NOTE You must re-save all your extensions configured for Auto Provisioning.

The screenshot shows the 'Server configuration' page in the PBXware web administration interface. It is divided into two main sections: 'Network Info' and 'Auto Provisioning'. In the 'Network Info' section, the 'Server Name' is 'pbx-ze' and the 'PBXware Address' is '127.0.0.1'. In the 'Auto Provisioning' section, the 'LAN Hostname/IP' and 'WAN Hostname/IP' are both 'office5.bicomsystems.co'. The 'Use DNS SRV when possible' option is highlighted with a red box and is set to 'Yes'. Below this, the 'Numbering Defaults' section shows 'Number of digits' set to '3'. At the bottom, the 'PSTN numbering mode' is set to 'N/A'.

2. Login to phone web administration interface

If there is no DHCP in your network, you can still auto provision your Yealink phone. Please refer to your Yealink phone model User Guide for instruction about setting static IP address. After you configure your Yealink phone to use a static IP address, continue with the following steps.

- Open a new browser window and enter your phone IP address in order to access the phone web administration interface login screen. Example:
http://192.168.1.22
- Login to phone web administration interface with your username and password. Please note, factory default login details are username: admin and password: admin.
- Click on **Upgrade** tab.
- Click **Advanced** tab.
- **URL**
In the **URL** field enter the Hostname.
 - Example for the Hostname: **bicomsystems.com**
- Make sure you replace Hostname from this example with your PBXware Hostname.
- Make sure DNS server is configured to automatically route registration request to a PBXware which is actually under another domain name, example:
newbicomsystems.com.
- Check New Config
Select **Power on + Repeatedly**.
- Click on the **Confirm** button.
You'll have to wait sometime prior for the device to save changes.
- Click on the **Auto Provision** button to run auto provisioning process, then you'll be asked to confirm action. To continue click on **OK** button.
- Auto provisioning process will start during phone reboot process, phone will pickup appropriate configuration file from PBXware. If everything is done as above described, you should have successfully registered your phone to PBXware. Dial ***123** to verify registration.

5 Configure BLF

This chapter describes how to configure BLF (Busy Lamp Field) for Yealink phones.

NOTE BLF (Busy Lamp Field) supported only with Yealink phone model SIP-T26P and SIP-T28P.

The following topics are covered:

- [Extension Settings](#)
- [Phone Settings](#)

5.1 Extension Settings

1. Login to PBXware web administration interface

- Open a new browser window and enter the IP address in order to access the PBXware web administration login page. Example: **http://192.168.1.10**.
- Login to PBXware with your e-mail address and password.

2. Edit extension

- On the **Extensions** page click on the **edit** icon corresponding to your extension.
- Click on **Advanced Options** button.
- Navigate down to the **Auto Provisioning** and **Presence** group of settings.
- Make sure **Auto Provisioning** is set to **Yes**.
- Make sure **Presence** is set to "Yes".
- Click on the **Save** button to save changes.
- Click on **Enhanced** services.
- Click on **Directory / BLF List** check box and click on **Save** button in order to enable this feature.
- Click on Directory / BLF List **Edit** button.
- Enter user extension number and click on the **BLF** check box.
- Click on **Save** button.

5.2 Phone Settings

1. Login to phone web administration interface

- Open a new browser window and enter your phone IP address in order to access the phone web administration interface login screen. Example: **http://192.168.1.22**.

- Login to phone web administration interface with your username and password. Please note, factory default login details are username: **admin** and password: **admin**.
- Click on **Phone**.
- Click on **DSS Keys**.
- Configure 1 to 10 DSS Keys from the list.
Type: Select **BLF**.
Value: Enter user extension. Example: **1005**
- Click on **Confirm** button to save changes.

6 Shared Parking

This chapter describes how to configure Shared Parking which is a feature that allows a person with a Yealink phone models SIP-T26P and SIP-T28P to pick up parked calls using BLF buttons. Once a call is parked, BLF button on the configured phone change it's color from green to red, indicating user about parked call. User can pickup that call by pressing BLF button indicating that a call is parked. Please note: Extension must be configured for [Auto Provisioning](#).

The following topics are covered:

- [Extension Settings](#)
- [PBXware Settings](#)

6.1 Extension Settings

1. Login to PBXware web administration interface

- Open a new browser window and enter the IP address in order to access the PBXware web administration login page. Example: **http://192.168.1.10**.
- Login to PBXware with your e-mail address and password.

2. Edit extension.

- On the **Extensions** page click on the **edit** icon corresponding to your extension.
- Click on **Advanced Options** button.
- Navigate down to the **Auto Provisioning** and **Presence** group of settings.
- Make sure **Auto Provisioning** is set to **Yes**.

- Make sure **Presence** is set to **Yes**.
- Click on the **Save** button to save changes.
- Click on **Enhanced** services.
- Enable **Call Pickup**.
- Enable **Directory / BLF List**.
- Click on **Save** button at the bottom.
- Click on Directory / BLF List **Edit** button.
- Enter 1 to 10 call parking slots into the list and make sure each **BLF** box is checked.
- Click on **Save** button.

6.2 PBXware Settings

1. Login to PBXware web administration interface

- Open a new browser window and enter the IP address in order to access the PBXware web administration login screen. Example: `http://192.168.1.10`
- Login to PBXware with your e-mail address and password.

2. PBXware settings

- Navigate to **Settings:Conf** files.
- Make sure you are looking at **extensions.conf** configuration file.
- Copy and past below code at the bottom of **extensions.conf** file.

[hints]

```
exten => 701, hint, park:701@parkedcalls
exten => 702, hint, park:702@parkedcalls
exten => 703, hint, park:703@parkedcalls
exten => 704, hint, park:704@parkedcalls
exten => 705, hint, park:705@parkedcalls
exten => 706, hint, park:706@parkedcalls
exten => 707, hint, park:707@parkedcalls
exten => 708, hint, park:708@parkedcalls
```

exten => 709, hint, park:709@parkedcalls
exten => 710, hint, park:710@parkedcalls

4. Click on the **Save** button to save changes.
5. Click on the **Reload** button top right in order to reload PBXware for changes to take effect.